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- Specification, page 29, line 6 serial number is missing.
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dipped in methyl ethyl ketone. The gate electrodes 112 and 118 are then exposed by the same wiping process.

In another embodiment according to the present invention, a lamination process is substituted for the spin coating process in order to deposit the high conductivity inducing polymer in step 1115. Suitable lamination processes for this purpose are disclosed in U.S. Patent Application Serial No. _____, filed concurrently herewith, entitled "Process for Laminating a Dielectric Layer into a Semiconductor." This patent application is assigned to E. I. du Pont de Nemours and Company, docket No. CL-2181, and is hereby incorporated herein by reference in its entirety. It is to be understood that such lamination processes can be used in substitution for spin coating processes in all of the instances where spin coating is discussed in this specification.

At step 1120, a layer 110 of pentacene is provided on the high conductivity inducing layer regions 120 and 122, and on the exposed portions of the insulating substrate 124. The pentacene is applied by a process that is suitable to allow the high conductivity inducing layer regions 120 and 122 to affect the crystallinity of the applied pentacene. For example, pentacene can be applied onto the high conductivity inducing layer regions 120 and 122 by employing a vacuum sublimation process. The insulating substrate 124 having the high conductivity inducing layer regions 120 and 122 is placed in a suitable vacuum chamber such as a bell jar, which is then evacuated. A source of pentacene is also placed in the vacuum chamber and heated to sublimate the pentacene and deposit a pentacene layer 110 over the high conductivity inducing layer regions 120 and 122 and over the exposed portions of the insulating substrate 124. High conductivity regions 126 and 128 are thus generated within the pentacene layer 110.

At step 1125, source electrodes 106 and 114, and drain electrodes 108 and 116, are provided on the semiconductor layer 110 in alignment over the high conductivity inducing layer regions 120 and 122. For example, a steel shadow mask can be placed over the surface of the semiconductor layer 110, leaving exposed those portions of the surface where the source

laser head can be individually energized for precise pattern control. As the laser head is guided over the surface of the printer cylinder, laser light is directed in a precise desired pattern corresponding to the desired high or low conductivity inducing polymer layers or regions on the insulating substrate. Typically, the precise pattern is computer generated. In the precise areas where laser energy enters the donor film, the high or low conductivity inducing polymer is transferred onto the insulating substrate. Fine accuracy of the printing pattern is needed. This accuracy can be achieved by proper programming of the computer guidance systems. Further advantageous embodiments of laser induced thermal transfer imaging processes that can be employed in practice of various aspects of the present invention are disclosed in U.S. Patent Application Serial No. _____, filed concurrently herewith, entitled "Method for Increasing Mobility of Vapor Deposited Pentacene." This patent application is assigned to E. I. du Pont de Nemours and Company, docket No. CL-2447, and is hereby incorporated by reference herein in its entirety.

Processes and apparatus relating to laser induced thermal transfer imaging are disclosed in the following patent documents for example, which are hereby incorporated by reference herein in their entirety: Blanchet-Fincher U.S. Patent No. 5,192,580; Blanchet-Fincher U.S. Patent No. 5,288,528; Blanchet-Fincher U.S. Patent No. 5,523,192; Blanchet-Fincher U.S. Patent No. 5,563,019; Blanchet-Fincher U.S. Patent No. 5,766,819; Blanchet-Fincher U.S. Patent No. 5,840,463; Blancher-Fincher U.S. Patent No. 6,143,451; Blancher-Fincher et al. U.S. Patent No. 6,146,792; Blanchet-Fincher U.S. Patent Pub. No. 2002/0149315; Blanchet-Fincher et al. PCT published application WO 01/87634 A2 dated 11/22/2001; Blanchet-Fincher et al. PCT published application WO 02/08801 A1 dated 1/31/2002; and Blanchet-Fincher et al. PCT published application WO 02/092352 A1 dated 11/21/2002. Apparatus for carrying out laser induced thermal transfer imaging are commercially available from Creo Inc., 3700 Gilmore Way,